



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

meet it in Z , then $PR : PS :: PZ^2 : PS^2$, hence $PZ^2 : PS^2 :: PE^2 : SV^2$, or $PZ^2 : PE^2 :: PS^2 : SV^2$; $\therefore PZ : PE :: PS : SV$, and by composition we have $PZ : ZE :: PS : PV$, $\therefore PZ^2 : ZE^2 :: PS^2 : PV^2$; but the triangle VNP has all its angles given, being similar to the triangle VMS , hence $VP^2 = m \times PN^2$, $\therefore PZ^2 : ZE^2 :: PS^2 : m \times PN^2$, or $PZ^2 : ZE^2 :: PS^2 : m \times PS \times PK :: PS : m \times PK :: PS \times PR : m \times PR \times PK$, but $PZ^2 = PS \times PR$, $\therefore ZE^2 = m \times PR \times PK$. Draw Rq , Kp perpendiculars to SK and meeting Ep in q and p , \therefore the points p and q are given, and $m \times pE \times Eq = ZE^2$, $\therefore pE \times qE : EZ^2$ in a given ratio of $1 : m$; hence the locus of the point Z is a hyperbola mn in position, and the semicircle is in position, \therefore the point Z is fixed and the perpendicular ZPE is in position, and so is the semicircle SNK ; \therefore the point N is fixed and the line KN is in position, \therefore the points H , G are fixed and the circle $DFGH$ is given in position.

The synthesis of this problem is not long, and will be easily seen from the analysis.

NOTE ON PROBLEM 443.—Prof. Seitz has called our attention to the fact that problem 443 is identical with problem 183, his solution of which was published at pages 27 and 28 of Vol. V.

As the problem had accidentally been placed with the unpublished problems, after its insertion in Vol. V, the fact of its having been published was not remembered when it was inserted in Vol. X, nor when the method of solution, published at p. 156, was sketched.

Prof. Seitz has also pointed out that the equation $V_4 = \frac{1}{12}mx_1$, at page 156, is not exact, because, when the equation is exact, the edges of the pieces V_4 are straight lines, whereas, in this case, they are arcs of a hyperbola. This objection is valid, and the equation should have been written,

$$V_4 = \int_0^{x_1} \varphi(x) dx,$$

where $\varphi(x)$ is the value of m at the altitude x above the lower base of the frustum. But as this method possesses no advantage over that pursued by Prof. Seitz, the reader is referred to the solution of problem 184 at pp. 27-28 of Vol. V for a solution of the problem in detail.

Since the above was put in type we have received from Professor J. M. Greenwood, of Kansas City, Mo., the following letter announcing the death of Professor Seitz, which we take the liberty to publish, as a brief tribute to his virtue and ability, by one who knew him personally.

Kansas City, Mo., Oct. 11, 1883.

Dear Sir:—

The brilliant mathematician, Enoch B. Seitz, died at Kirksville, Mo., on the 8th inst., of Typhoid Fever, after a protracted illness of five weeks. He went to the "Normal" on the day the session opened, but was unable to take charge of his class the next day.

His death causes unusual regret among the thousands of students, teachers, and citizens of this state, who admired him not only on account of his transcendent powers as a mathematician, but as a model of excellence in his daily life.

He was about 34, I think, though I speak from memory only.—The rising star set ere it reached the meridian.

J. M. GREENWOOD.

We have never had the pleasure of meeting Mr. Seitz and our earliest knowledge of him dates with the commencement of the ANALYST, since which the pages of the ANALYST bear witness to his constant and valuable correspondence, from which we have long regarded him as possessed of extraordinary mathematical ability and precision of thought. And though we have been favored with the correspondence of many able mathematicians, we believe that, in acuteness of perception, and in conciseness and elegance of style, Mr. Seitz would rank with the ablest. We had anticipated valuable results from his labors, and believe that, had his life been spared, his industry and ability would have materially assisted in enlarging the boundaries of exact science.

The readers of the ANALYST are indebted to Mr. Seitz not only for the many elegant solutions by him that have been published, but also for the "Index to Contributors of Solutions of Problems", which was furnished by him, voluntarily and unsolicited, and must have been about the last work that he was permitted to do, as it bears date Sept. 5.